PROFIT AND LOSS- Important Formulas

IMPORTANT FACTS:

Cost Price:
The price, at which an article is purchased, is called its **cost price**, abbreviated as **C.P.**

Selling Price:
The price, at which an article is sold, is called its **selling prices**, abbreviated as **S.P.**

Profit or Gain:
If S.P. is greater than C.P., the seller is said to have a **profit** or **gain**.

Loss:
If S.P. is less than C.P., the seller is said to have incurred a **loss**.

IMPORTANT FORMULAE

1. Gain = (S.P.) - (C.P.)
2. Loss = (C.P.) - (S.P.)
3. Loss or gain is always reckoned on C.P.
4. Gain Percentage: (Gain %)

$$\text{Gain \%} = \left(\frac{\text{Gain x 100}}{\text{C.P.}} \right)$$

5. Loss Percentage: (Loss %)

$$\text{Loss \%} = \left(\frac{\text{Loss x 100}}{\text{C.P.}} \right)$$

6. Selling Price: (S.P.)

$$SP = \left[\frac{(100 + \text{Gain \%})}{100} \text{ x C.P} \right]$$

7. Selling Price: (S.P.)

$$SP = \left[\frac{(100 - \text{Loss \%})}{100} \text{ x C.P.} \right]$$

8. Cost Price: (C.P.)

$$C.P. = \left[\frac{100}{(100 + \text{Gain \%})} \text{ x S.P.} \right]$$

9. Cost Price: (C.P.)

$$C.P. = \underline{ 100 } \text{ x S.P.}$$

$$\left[\frac{}{(100 - \text{Loss }\%)} \right]$$

10. If an article is sold at a gain of say 35%, then S.P. = 135% of C.P.

11. If an article is sold at a loss of say, 35% then S.P. = 65% of C.P.

12. When a person sells two similar items, one at a gain of say $x\%$, and the other at a loss of $x\%$, then the seller always incurs a loss given by:

$$\text{Loss }\% = \left(\frac{\text{Common Loss and Gain }\%}{10} \right)^2 = \left(\frac{x}{10} \right)^2.$$

13. If a trader professes to sell his goods at cost price, but uses false weights, then

$$\text{Gain }\% = \left[\frac{\text{Error}}{(\text{True Value}) - (\text{Error})} \times 100 \right]\%.$$